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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,610	10/09/2003	Nicholas F. DiCamillo	22-0153	3256

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EXAMINER
VUONG, QUOCHIEN B

ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/682,610	DICAMILLO ET AL.
	Examiner	Art Unit	
	Quochien B. Vuong	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 October 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-13</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-13</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>04/06/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 04/06/2005 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Norin

(US 6,173,155).

Regarding claim 1, Norin (column 2, line 62 – column 4, line 10) discloses a

method of processing a signal with frequencies within a frequency band having a

bandwidth B, the signal including a plurality of messages, each message having

frequencies within a unique frequency band, where the frequency bands of the plurality

of messages occupy the bandwidth B, and where messages with adjacent frequency

bands may have different bandwidths, said method comprising: receiving the signal

(column 5, lines 17-29); separating the signal into groups of messages having

frequency bands with the same bandwidth, all messages in any group occupy non-

adjacent frequency bands (column 5, lines 49-53); combining the messages of each

group (column 5, lines 53-57); applying each combined group of messages to a

separate amplifier to amplify each combined group of messages (column 5, lines 57-

61); and separating each amplified group of messages into separate messages (column

6, lines 6-15).

Regarding claim 2, Norin discloses transmitting each separated message to a

respective receiving station (column 6, lines 6-15).

Regarding claim 3, Norin (column 2, line 62 – column 4, line 10) discloses a

method of communicating a plurality of messages from an originating station, through a

relaying station, to a plurality of receiving stations, said method comprising transmitting

the plurality of messages from the originating station to the relaying station in a signal

with frequencies within a frequency band having a bandwidth B, with each message

having frequencies within a unique frequency band, where the frequency bands of the

plurality of messages occupy the bandwidth B, and where messages with adjacent

frequency bands may have different bandwidths (column 5, lines 17-42); and at the

relaying station: separating the messages into groups of messages having the same

bandwidth, where all messages in any group occupy non-adjacent frequency bands

(column 5, lines 49-53); combining the messages of each group(column 5, lines 53-57);

applying each combined group of messages to a separate amplifier to amplify each

combined group of messages(column 5, lines 57-61); separating each amplified group

of messages into separate messages (column 6, lines 6-15); and transmitting each

separated message to a respective receiving station (column 6, lines 6-15).

Regarding claim 4, Norin (column 2, line 62 – column 4, line 10) discloses an

article, comprising a storage medium having instructions stored thereon, the

instructions when executed processing a signal with frequencies within a frequency

band having a bandwidth B, the signal including a plurality of messages, each message

having frequencies within a unique frequency band, where the frequency bands of the

plurality of messages occupy the bandwidth B, and where messages with adjacent

frequency bands may have different bandwidths, the instructions processing the signal

by receiving the signal (column 5, lines 17-29); separating the signal into groups of

messages having frequency bands with the same bandwidth, where all messages in

any group occupy non-adjacent frequency bands (column 5, lines 49-53); combining the

messages of each group (column 5, lines 53-57); applying each combined group of

messages to a separate amplifier to amplify each combined group of messages (column

5, lines 57-61); and separating each amplified group of messages into separate

messages (column 6, lines 6-15).

Regarding claim 5, Norin discloses wherein the instructions when executed

further transmit each separated message to a respective receiving station (column 6,

lines 6-15).

Regarding claim 6, Norin (column 2, line 62 – column 4, line 10) discloses an

article, comprising a storage medium having instructions stored thereon, the

instructions when executed communicating a plurality of messages from an originating

station, through a relaying station, to a plurality of receiving stations, the instructions

communicating the messages by transmitting the plurality of messages from the

originating station to the relaying station in a signal with frequencies within a frequency

band having a bandwidth B, with each message having frequencies within a unique

frequency band, where the frequency bands of the plurality of messages occupy the

bandwidth B, and where messages with adjacent frequency bands may have different

bandwidths (column 5, lines 17-42); and at the relaying station separating the messages

into groups of messages having the same bandwidth, where all messages in any group

occupy non-adjacent frequency bands (column 5, lines 49-53); combining the

messages of each group (column 5, lines 53-57); applying each combined group of

messages to a separate amplifier to amplify each combined group of messages (column

5, lines 57-61); separating each amplified group of messages into separate messages

(column 6, lines 6-15); and transmitting each separated message to a respective

receiving station (column 6, lines 6-15).

Regarding claim 7, Norin (column 2, line 62 – column 4, line 10; and figure 4)

discloses an apparatus for processing a signal with frequencies within a frequency band

having a bandwidth B, the signal including a plurality of messages, each message

having frequencies within a unique frequency band, where the frequency bands of the

plurality of messages occupy the bandwidth B, and where messages with adjacent

frequency bands may have different bandwidths, said apparatus comprising: an

antenna to receive the signal (column 5, lines 17-25); a first demultiplexor to separate

the messages (column 5, lines 49-53); a filter unit to filter and group the separated

messages into groups of messages having the same bandwidth, where all messages in

a group occupy non-adjacent frequency bands (column 5, lines 49-53); a combining

circuit to combine the messages of each group (column 5, lines 53-57); an amplifier for each group of messages to amplify each combined group of messages (column 5, lines 57-61); and a second demultiplexor to separate each amplified group of messages into separate messages (column 6, lines 6-15).

Regarding claim 8, Norin discloses wherein the amplifier comprises a traveling wave tube amplifier (column 5, lines 57-61).

Regarding claim 9, Norin discloses a transmitting antenna to transmit the separated messages (column 6, lines 13-15).

Regarding claim 10, Norin discloses an earth-orbiting satellite (column 5, lines 17-25).

Regarding claim 11, Norin (column 2, line 62 – column 4, line 10; and figure 4) discloses a communication system, comprising: an originating station to transmit a signal including a plurality of messages, the signal having frequencies within a frequency band having a bandwidth B, with each message having frequencies within a unique frequency band, where the frequency bands of the plurality of messages occupy the bandwidth B and where messages with adjacent frequency bands may have different bandwidths; a plurality of receiving stations to receive the plurality of messages (column 5, lines 17-25); and a relaying station including an antenna to receive the signal, a first demultiplexor to separate the messages (column 5, lines 49-53), a filter unit to filter and group the separated messages into groups of messages having the same bandwidth, where all messages in any group occupy non-adjacent frequency bands (column 5, lines 49-53), a combining circuit to combine the messages of each

group (column 5, lines 53-57), an amplifier for each group of messages to amplify each

combined group of messages (column 5, lines 57-61), a second demultiplexor to

separate each amplified group of messages into separate messages (column 6, lines 6-

15), and means for transmitting the separated messages to their respective receiving

stations (column 6, lines 6-15).

Regarding claim 12, Norin discloses wherein the amplifier comprises a traveling

wave tube amplifier (column 5, lines 57-61).

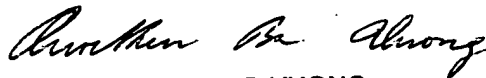Regarding claim 13, Norin discloses an earth-orbiting satellite (column 5, lines

17-25).

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Quochien B. Vuong whose telephone number is (571)

272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QUOCHIEN B. VUONG
PRIMARY EXAMINER

Quochien B. Vuong
Jan. 22, 2007.